

REMARKS

Applicants wish to thank the Examiner for the thorough consideration of the above mentioned application and in the recognition of allowable subject matter. Applicants hereby wish to amend the application as follows, and in so doing, believe to have overcome the Examiner's rejections.

Status of the Claims.

Claims 1-29 and 31-35 remain in this application. Claim 30 has been canceled. Claims 1-7 have been allowed. Claims 8, 9, 11, 12, 16 and 35 were rejected under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 5,390,621 to Hattori et al. ("Hattori '621"). Claims 17-21, 26-29 and 31-33 were rejected under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 4,609,360 to Whitehead ("Whitehead '360").

Claims 8, 10-21, 24-26 and 31 have been amended herein, support for which may be found throughout the specification and, particularly, at page 7, line 4- page 9, line 19; page 10, line 14- page 11, line 2 and FIGS. 3-10. No new matter has been added.

Rejections to the Claims Under 35 U.S.C. §102.

Claims 8, 9, 11, 12, 16 and 35 were rejected under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 5,390,621 to Hattori et al. ("Hattori '621"). Applicants respectfully disagree.

Claim 8 calls for jet-propelled personal watercraft including, among other things, a bottom hull having a length and a center keel portion extending longitudinally along at least a portion of the length. As claimed, the center keel portion has a pair of opposing side surfaces, each of which has a greatest downward slope, and a longitudinal keel section extending along a portion of the length between a front limit and a rear limit. The rear limit is disposed within the middle third of the length of the bottom hull, wherein the greatest downward slope increases moving from the front limit to the rear limit.

In contrast, Hattori '621 discloses a watercraft having a hull, the bottom side of which is illustrated in FIG. 3 of Hattori '621. Cross sections of the hull taken at various points are illustrated in FIG. 5. As noted in Hattori '621, hull 23 (FIG. 2) is formed with generally flat lower section 26 in the mid-rear region at line C-C and assumes a gentle upwardly curved taper at lines B-B and A-A as it approaches the forward end. Examiner identifies the "keel section" as being only the smaller front segment of the keel portion located proximate the bow and in the regions of lines A-A and B-B. However, as required in claim 8 of the present application, the claimed keel section extends between a rear limit disposed in the middle third of the length of the keel and a front limit, and throughout this keel section the greatest downward slope increases moving from front to rear.

This is not the case in the hull of Hattori '621. Neither line A-A, nor line B-B (which appear to define or guide the boundaries of Examiners designated "keel section") are located in the middle third of the length of the keel. There is nothing in Hattori '621 to suggest that the greatest downward slope increases moving from front to rear in any part of the middle third of the length of the hull. In fact, moving from line B-B to C-C (which would appear to comprise the middle third of the length of the hull) the shape of the keel flattens. Thus, if any rear limit was selected between line B-B and C-C, the greatest downward slope would appear to decrease moving from front to back, rather than increase.

Accordingly, Hattori '621 fails to disclose a keel section having a rear limit within the middle third of the length of the hull and having an increasing greatest downward slope moving from a front limit to the rear limit. For this reason, claim 8 and claims 9-16 and 35 depending therefrom are patentable over Hattori '621.

Claims 17-21, 26-29 and 31-33 were rejected under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 4,609,360 to Whitehead ("Whitehead '360"). Applicants respectfully disagree.

Claim 17 calls for a personal watercraft hull including, among other things, a bottom hull having a rear extent, an opposing front extent and a length extending therebetween. As claimed, the bottom hull further includes a center keel strip extending longitudinally along a centerline of the bottom hull and including a center keel portion having a generally V-shaped cross-section extending over the middle third of the length of the bottom hull.

Examiner asserts that Whitehead '360 shows a watercraft having a V-shaped center keel portion extending over at least the middle third of the length of the hull. Applicants respectfully disagree. As shown in FIG. 1, Whitehead '360 discloses a boat having hull 10 with a V-bottom 20. See Whitehead '360, Col. 2, lines 65-68. Keels 15 extends along the keel line of the hull between two-stage flow chambers 14, 16. While the specification describes hull 10, as having a generally V-shaped bottom, FIG. 9 illustrates that, along the keel line in the area of line 9-9 of FIG. 2, the keel portion of hull 10 no longer has a V-shaped cross-section. Rather, the keel portion of the hull is flattened and recessed to provide enlarged chamber 14. In fact, Whitehead '360 teaches away from a V-shaped keel portion extending over the middle third of the length of the hull, by including the following description in the specification.

The cross-sectional shape of forward flow chamber 14 is important to ensure a laminar flow of water into aft flow chamber 16. Referring to FIGS. 7-9, this shape is illustrated. Flow chamber 14 starts as a V parallel with the hull bottom (see FIG. 7) and gradually decreases in angle toward the aft flow chamber 16. As noted from FIG. 8, the angle of the V along plane 8-8 of FIG. 2 is approaching 180°. At the end of forward flow chamber and at the beginning of aft flow chamber 16, the angle is 180°, as seen in FIG. 9.

See Whitehead '360, Col. 3, lines 20-29.

Accordingly, Whitehead '360 fails to disclose the hull including a center keel portion having a generally V-shaped cross-section extending over the middle third of the length of the hull. For this reason, claim 17 and claims 18-25 depending therefrom are patentable over Whitehead '360.

Claim 26 calls for a personal watercraft hull including, among other things, a center keel portion extending from a front limit to a rear limit, the rear limit disposed within the middle third of the hull, the center keel portion being generally V-shaped along its entire length. For the same reasons discussed above with respect to claim 17, Whitehead '360 fails to disclose a hull having a center keel portion being generally V-shaped along its entire length, the length having a rear limit disposed within the middle third of the hull. More particularly, it appears that only line 9-9 (FIG. 2) of Whitehead '360 may fall within the middle third of hull 10 (FIG. 1). As shown in FIG. 9, a section taken along line 9-9 reveals that the center keel portion is not V-shaped in cross-section, but rather has a rectangular shape recessed inward. There is nothing in Whitehead '360 to suggest that any rear limit selected in the middle third of hull 10 (FIG. 1) would give rise to a center keel portion being generally V-shaped in cross-section along its entire length. For these reasons, claim 26 and claims 27-29 depending therefrom are patentable over Whitehead '360.

Claim 31 calls for a personal watercraft hull including, among other things, a center keel portion having a generally V-shaped keel and a longitudinal keel section. As claimed, the keel section includes concave areas located on either side of the keel portion. Whitehead '360 fails to show such concave areas. Assuming Examiner is referring to flow chamber 14 as the concave area, these chambers are not concave. Chamber 14 does not curve inwardly to produce a concave shape. Furthermore, Whitehead '360 fails to suggest that chamber 14 could be concave. It is noted that Whitehead '360 does mention that flow chamber 14 curves upward, however, Whitehead '360 is referring to the path on which flow chamber 14 extends, as shown in FIG. 1. See Whitehead '360, Col. 3, lines 3-19. Whitehead '360 does not disclose or suggest concave areas. Accordingly, Whitehead '360 fails to disclose all the limitations of claim 31. For this reason, claim 31 and claims 32-34 depending therefrom are patentable over Whitehead '360.

Rejections to the Claims Under 35 U.S.C. §103.

Claims 13-15 were rejected under 35 U.S.C. §103 as being obvious in view of Hattori '626 and knowledge of those skilled in the art. Hattori '626 was relied upon for showing all the limitations of base claim 8. Claims 13-15 depend from claim 8 and, therefore, include all the limitations of claim 8. For the reasons discussed above with respect to claim 8, Hattori '626 fails to disclose all the limitations of claim 8. Therefore, claims 13-15 by way of dependency on claim 8 are patentable over Hattori '626.

Allowable Subject Matter.

Applicants thank Examiner Vasudeva for allowing claims 1-7 and for acknowledging that claims 22-25 and 34 include allowable subject matter. At this time, Applicants decline to amend claims 22-25 and 34 to independent form as suggested by Examiner because, for the reasons discussed above, Applicants believe that claims 22-25 and 34 are allowable in dependent form.

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CONCLUSION

Applicants respectfully request that action toward a Notice of Allowance be taken.

Applicants have submitted, herewith, a check in the amount of fee due for a one month extension of time and hereby request such an extension. Applicants believe that no additional fees are due in connection with this submission, however, if any fees are necessary, please charge Deposit Account No. 02-0390, Baker & Daniels.

Respectfully Submitted,

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